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# FRBSF WEEKLY LETTER

May 20, 1988

## Resource Industry Outlook

Natural resource industries in the West enjoyed a strong recovery during the past year. Agriculture, forestry, and mining registered gains, boosting the economies of many western states. This recovery should continue in the near-term; however, the long-term outlook for the resource sector is clouded by potential cuts in some agricultural support programs, additional environmental restrictions, and uncertainties concerning oil and mineral prices.

### Strength in 1987

Nearly all natural resource industries enjoyed improved conditions during the past year. Agricultural producers reported strong growth in income. Reduced supply pushed livestock prices up sharply. Likewise, decreased stocks of key commodities and a surging export market buoyed crop prices. Record government spending on support programs reduced grain and dairy cattle surpluses, increased farm income sharply, and supported export growth.

The forest products industry felt the export boom most directly. Strong demand from Japan led to record prices for logs, declining log inventories, and sharply higher profits in the industry. Likewise, paper production remained near capacity.

Mining — even oil and gas extraction — also strengthened over the year. Mineral prices in the West rose 24 percent. Increases in aluminum prices pushed aluminum production to capacity, and rising copper prices prompted the reopening of copper mines. Energy extraction activity, while still depressed relative to the early 1980s, increased during the year. Greater stability in oil prices stimulated drilling in the West; activity increased 30 percent between the first quarter of 1987 and the first quarter of 1988.

### Economies strengthened

Improved conditions in these resource industries strengthened the economies of many western

states. Gains in metal mining boosted employment in Arizona, Idaho, Nevada, and Utah. Strengthening oil prices halted the employment slide in Alaska and boosted employment in California. The robust performance of the forest products industry helped to propel the Oregon and Washington economies to strong employment growth. With the exception of Idaho, where low potato prices depressed income, farmers and ranchers throughout the West enjoyed strong income growth and reduced their debt burdens significantly.

### Concerns about the future

In the future, however, resource industries face significant obstacles. Drought conditions in the short run and potential government spending cuts in the long run threaten western agricultural production. Because of critical water shortages in several western states, beef producers may be forced to reduce herd sizes, and some irrigation of crop land may be restricted. In California, new restrictions on pesticide and fertilizer use also may reduce yields.

Over the longer term, efforts to reduce government spending may include cuts in agricultural programs. Although agricultural producers in the West receive a smaller-than-average share of government payments, the elimination of support prices and acreage reduction programs would put downward pressure on crop prices and could diminish profits, particularly in the District's cotton, dairy, and wheat production.

In the forest products industry, production has fallen due to restrictions on access to forest land. Continued drought conditions have increased the fire danger, and threaten further to restrict timber cutting. Over the longer term, moreover, the supply of available timber is in doubt. New forest service proposals favoring competing uses of forest land could significantly reduce the amount of public land available for logging.

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## THE WESTERN ECONOMY

*The Western Economy* is a quarterly review of economic conditions in the Twelfth Federal Reserve District. It is published in the *Weekly Letter* on the third Friday of February, May, August and November.

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The mining industry also faces problems. Energy-related mining is dependent on oil prices, which remain unpredictable. Other minerals currently are enjoying high prices, but the history of mineral prices suggests that continued strengthening is unlikely. Mineral prices have been highly volatile during the past 100 years, and after correcting for the general rate of inflation, prices for most major minerals are little changed from those of the late 1800s.

## Outlook

In the short run, the western region will continue to benefit from positive developments in its natural resource industries. Prices and profits should remain strong for most resources over the next year or two. Over the longer term, however, the serious problems facing Western resource industries threaten to diminish these industries' contribution to total employment and income growth in the West.

Ronald H. Schmidt

## Growth Continues in Western Region

The Twelfth Federal Reserve District continues to post solid economic growth, at a pace exceeding that of the nation. Nonagricultural employment grew at a 4.5 percent seasonally adjusted annual rate in the West during the first quarter of 1988, compared with 3.7 percent nationally.

The reduced foreign exchange value of the dollar has increased the competitiveness of many western products on world markets. Increased exports have improved profitability and increased employment in such resource sectors as forest products, metal mining, and agriculture. Manufacturing activity also has been buoyed by the reduced value of the dollar, as well as by improvement in the electronics industry and by strong demand for commercial aircraft. These factors have resulted in a modest acceleration of manufacturing employment growth. During the next several years, strong demand for commercial aircraft should mitigate the adverse effects of reduced defense spending, and further export gains should continue to typify other manufacturing sectors.

While economic conditions are solid overall, construction activity has been mixed, with substantial variations among building types and areas. In general, single-family home construction has been steady, despite consumer jitters after October's stock market decline and a rise in mortgage rates above the 10 percent level. Office and apartment construction has fared poorly in most areas due to a combination of overbuilding and changes in tax laws that

make these projects less attractive.

Differences among states also are evident. Nevada posted the strongest employment growth rate in the nation through most of 1987, due, in part, to strong tourist and gaming activity. The state also is enjoying a construction boom because of its low rents and cost of living, which enable firms to pay lower wages and provide a favorable business climate. California, Hawaii, Oregon, and Washington also exhibited solid growth, and should continue to do so. However, Nevada and Oregon may experience somewhat slower — though still strong — growth.

In Idaho and Alaska, economic fortunes have improved in recent months. Alaska's economy seems to be pulling out of its two-year-old oil-related recession, but slow growth is likely for the next couple of years. Improvements in agriculture and metal mining appear to have caused a modest turnaround in Idaho as well. In contrast, Utah's economy continues to be sluggish. Although manufacturing and services provide some growth, the construction industry currently is at a standstill.

Arizona's first quarter employment growth rate of 3.3 percent is respectable by most standards, but it represents a significant deterioration from past robust growth. Slower population growth, reduced construction activity, and lackluster manufacturing activity portend continued moderation in Arizona's growth rate.

Carolyn Sherwood-Call

# DISTRICT INDICATORS

(SEASONALLY ADJUSTED)

	88Q1	87Q4	87Q3	87Q2	87Q1	86Q4	86Q3	86Q2	% CHANGE FROM:	
									87Q4	87Q1
<b>AGRICULTURE</b>										
U.S. CROP PRICES, 1985=100	101.5	100.5	99.8	100.1	95.0	95.3	96.9	95.0	0.96	6.77
DISTRICT CROP PRICES, 1985=100	104.5	111.1	101.8	101.0	96.6	92.9	93.2	93.9	-6.01	8.18
FARM CASH RECEIPTS, MILLION \$	N/A	1975.3	2160.8	2132.4	2029.3	1945.8	1826.0	1901.4	N/A	N/A
CATTLE ON FEED, 1985=100	93.3	95.3	94.3	85.4	81.8	81.1	83.7	89.6	-2.15	13.96
CATTLE PRICES, CALIFORNIA, \$/CWT.	61.2	57.8	58.0	56.4	52.4	49.4	47.2	42.7	5.76	16.80
<b>FORESTRY</b>										
LUMBER PRODUCTION, MILLION BOARD FEET	1729.9	1762.6	1760.8	1770.2	1796.8	1822.0	1659.1	1589.8	-1.85	-3.72
NORTHWEST LUMBER INVENTORY, MIL. BOARD FEET	2514.5	2470.3	2608.2	2643.2	2584.3	2598.7	2525.4	2535.4	1.79	-2.70
U.S. LUMBER PRICES, 1985=100	109.9	109.0	111.9	107.2	104.1	101.5	102.1	103.1	0.84	5.58
<b>ENERGY</b>										
SPOT PRICE OF OIL, \$/BARREL	16.7	18.7	20.4	19.3	18.2	15.3	13.8	13.9	-11.04	-8.56
U.S. RIG COUNT	973.8	1002.2	1037.5	880.0	810.5	786.9	751.2	907.7	-2.84	20.15
DISTRICT RIG COUNT	79.1	99.5	102.9	82.6	60.1	61.8	62.1	78.5	-20.52	31.49
FUEL MINING EMPLOYMENT, 1985=100	77.1	77.9	78.2	77.6	76.0	77.1	77.4	84.9	-1.00	1.43
U.S. SEISMIC CREW COUNT	199.1	189.8	181.9	173.8	157.5	152.3	151.4	200.4	4.92	26.38
<b>MINING</b>										
MINERAL PRICES, 1985=100	159.8	149.3	129.9	119.9	107.5	104.9	102.6	101.1	7.07	48.72
METAL MINING EMPLOYMENT, 1985=100	141.3	131.8	126.8	119.7	111.7	102.6	96.8	96.5	7.20	26.50
<b>CONSTRUCTION</b>										
NONRESIDENTIAL AWARDS	1508.9	1602.2	1489.6	1464.9	1450.6	1405.4	1452.0	1329.7	-5.82	4.02
RESIDENTIAL PERMITS	27923	28694	30783	30200	32517	41469	36123	38490	-2.69	-14.13
WESTERN HOUSING STARTS, THOUSANDS	29.1	27.9	37.6	40.1	34.3	35.5	40.6	50.6	4.18	-15.16
CONSTRUCTION EMPLOYMENT, THOUSANDS	945.1	916.9	909.9	905.8	901.3	895.6	872.3	862.6	3.08	4.86
<b>MANUFACTURING</b>										
WAGES, CALIFORNIA, \$/HOUR	10.8	10.9	10.8	10.7	10.7	10.5	10.4	10.3	-0.64	1.16
EMPLOYMENT, THOUSANDS	3087.2	3056.1	3024.7	3004.1	2991.1	2982.7	2950.3	2953.7	1.02	3.22
DURABLES, 1985=100	102.2	101.1	100.4	99.7	99.3	99.1	98.8	99.0	1.10	2.94
CONSTRUCTION DURABLES, 1985=100	110.8	108.4	107.6	107.4	107.1	105.9	102.9	102.2	2.16	3.46
AEROSPACE, 1985=100	116.0	114.7	113.4	112.2	111.1	109.5	108.9	107.6	1.11	4.40
ELECTRONICS, 1985=100	98.1	97.2	95.9	94.9	94.7	94.6	94.4	93.9	0.93	3.64
<b>WHLS/RETAIL TRADE EMPLOYMENT, THOUSANDS</b>										
RETAIL SALES, PACIFIC DISTRICT, MIL. \$	383.3	399.2	427.4	426.6	405.9	406.3	391.2	385.8	-3.98	-5.56
	20511	20133	19722	19531	18947	19015	18895	18346	1.88	8.25
<b>SERVICES EMPLOYMENT, THOUSANDS</b>										
HEALTH CARE, 1985=100	4645.5	4587.1	4533.8	4486.5	4424.1	4347.8	4291.4	4252.1	1.27	5.01
BUSINESS SERVICES, 1985=100	112.8	111.4	110.1	108.7	107.7	106.0	105.0	103.8	1.28	4.70
HOTEL, 1985=100	118.7	115.9	115.1	113.5	111.3	109.2	107.3	105.6	2.42	6.63
RECREATION, 1985=100	116.2	114.9	112.2	110.6	108.8	106.4	105.0	103.5	1.10	6.75
	109.5	108.2	106.1	106.6	105.4	103.3	103.8	102.5	1.22	3.88
<b>FINANCE, INSUR. AND REAL ESTATE EMPLOYMENT</b>										
	1216.1	1209.2	1204.5	1196.2	1182.6	1169.2	1157.5	1149.8	0.57	2.83
<b>GOVERNMENT EMPLOYMENT, THOUSANDS</b>										
FEDERAL GOVERNMENT	610.3	609.9	605.3	605.2	601.0	599.5	596.5	599.1	0.07	1.56
STATE AND LOCAL	2566.7	2551.1	2527.3	2502.3	2490.0	2479.4	2466.5	2436.2	0.61	3.08

Data are weighted aggregates of available 12th District states, and are expressed as monthly rates unless otherwise noted. District Indicator data are constructed by FRBSF research staff from public and industry sources.

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Alaska Arizona California Hawaii Idaho  
Nevada Oregon Utah Washington

# Research Department Federal Reserve Bank of San Francisco

## PERSONAL INCOME GROWTH<sup>1</sup>

	ANNUAL GROWTH							
	87Q4	87Q3	87Q2	87Q1	86Q4	1987	1986	1985
ALASKA	10.9	0.5	7.0	-11.1	-5.0	1.7	-2.7	6.6
ARIZONA	6.4	6.1	6.6	5.7	7.1	6.3	8.1	11.0
CALIFORNIA	8.5	2.9	7.7	9.3	6.3	7.3	7.0	8.9
HAWAII	8.3	9.1	5.7	5.0	6.3	7.2	7.2	8.1
IDAHO	-0.1	11.9	3.5	1.0	5.0	4.1	3.0	4.5
NEVADA	10.8	10.3	6.9	6.6	7.5	8.9	8.2	8.4
OREGON	6.4	7.7	4.9	3.4	4.2	5.7	5.2	5.5
UTAH	7.9	2.8	7.1	2.5	0.7	5.2	2.7	6.0
WASHINGTON	6.8	7.0	4.6	-2.5	12.2	4.0	8.4	6.8
12TH DISTRICT	8.0	4.1	7.0	6.8	6.5	6.7	6.8	8.4
U.S.	9.9	5.7	5.1	7.6	4.5	7.3	5.5	6.8

## NON-AGRICULTURAL EMPLOYMENT GROWTH<sup>1</sup>

## AVERAGE UNEMPLOYMENT RATES

	ANNUAL GROWTH								ANNUAL AVERAGE							
	88Q1	87Q4	87Q3	87Q2	87Q1	1988 <sup>2</sup>	1987	1986	88Q1	87Q4	87Q3	87Q2	87Q1	1988 <sup>2</sup>	1987	1986
ALASKA	1.7	4.9	-4.6	-1.1	-6.1	1.7	-1.7	-6.4	9.3	10.1	10.6	11.2	11.4	9.3	10.8	10.9
ARIZONA	3.3	4.0	3.0	2.0	3.1	3.3	3.1	4.1	5.7	6.0	6.1	6.3	6.6	5.7	6.3	6.9
CALIFORNIA	5.1	3.3	3.5	3.9	3.6	5.1	3.6	2.5	5.2	5.4	5.5	5.9	6.2	5.2	5.7	6.7
HAWAII	4.6	7.4	1.9	2.6	3.1	4.6	3.8	2.6	3.5	3.8	3.8	4.0	4.2	3.5	4.0	4.9
IDAHO	4.7	3.2	2.9	4.0	-6.1	4.7	1.0	-0.2	7.4	7.3	7.4	8.2	8.9	7.4	8.0	8.8
NEVADA	7.5	7.0	5.9	6.9	6.3	7.5	6.7	5.8	6.0	6.0	6.3	6.5	6.4	6.0	6.3	6.0
OREGON	6.9	3.8	2.8	3.9	3.5	6.9	3.5	2.7	6.0	5.7	5.8	6.1	7.0	6.0	6.2	8.5
UTAH	0.3	2.8	-0.4	1.2	1.5	0.3	1.3	1.0	5.5	5.9	6.4	6.6	6.6	5.5	6.4	6.0
WASHINGTON	4.7	5.4	4.2	4.1	3.9	4.7	4.5	3.6	7.0	7.4	7.4	7.7	7.8	7.0	7.6	8.2
12TH DISTRICT	4.9	3.8	3.3	3.7	3.3	4.9	3.5	2.6	5.5	5.8	5.9	6.2	6.5	5.5	6.1	7.0
U.S.	3.7	4.0	2.2	2.3	2.9	3.7	2.9	2.0	5.7	5.9	6.0	6.2	6.6	5.7	6.2	7.0

<sup>1</sup> Annualized growth rates, percent. <sup>2</sup> Year-to-date.